

EXHIBIT A

Expert Report of Michael Barber

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1 Introduction and Qualifications

I am an associate professor of political science at Brigham Young University and faculty fellow at the Center for the Study of Elections and Democracy in Provo, Utah. I received my PhD in political science from Princeton University in 2014 with emphases in American politics and quantitative methods/statistical analyses. My dissertation was awarded the 2014 Carl Albert Award for best dissertation in the area of American Politics by the American Political Science Association.

I teach a number of undergraduate courses in American politics and quantitative research methods.¹ These include classes about political representation, Congressional elections, statistical methods, and research design.

I have worked as an expert witness in a number of cases in which I have been asked to perform and evaluate various statistical methods. Cases in which I have testified at trial or by deposition are listed in my CV, which is attached to the end of this report.

In my position as a professor of political science, I have conducted research on a variety of election- and voting-related topics in American politics and public opinion. Much of my research uses advanced statistical methods for the analysis of quantitative data. I have worked on a number of research projects that use “big data” that include millions of observations, including a number of state voter files, campaign contribution lists, and data from the US Census.

Much of this research has been published in peer-reviewed journals. I have published nearly 20 peer-reviewed articles, including in our discipline’s flagship journal, *The American Political Science Review* as well as the inter-disciplinary journal, *Science Advances*. My CV, which details my complete publication record, is attached to this report as Appendix A.

The analysis and explanation I provide in this report are consistent with my training in statistical analysis and are well-suited for this type of analysis in political science and quantitative analysis more generally. My conclusions stated herein are based upon my review

¹The political science department at Brigham Young University does not offer any graduate degrees.

of the information available to me at this time. I reserve the right to alter, amend, or supplement these conclusions based upon further study or based upon the availability of additional information.

2 Summary of Findings

Based on the evidence and analysis presented below, my opinions regarding recent Public Service Commission races, and voting patterns more generally, in Georgia can be summarized as follows:

- It is well established across recent years and in a variety of electoral contexts that Black voters strongly support Democratic candidates. This support is much more unified than among White voters who prefer the Republican party, but not to the same degree that Black voters are loyal to Democratic candidates.
- However, when considered independently, a voter's partisanship is a much stronger predictor of their vote choice than is a voter's race.
- Support by Black and White voters for the candidates of their preferred parties holds true regardless of the race of the candidate from either party. A candidate's race has had little to no measurable impact on the partisan preferences of Black and White voters in Georgia.
- The most recent statewide elections in Georgia have been very competitive, and Democratic candidates won statewide races in 2020 and 2021 when Public Service Commission candidates were also on the ballot.
- Ballot rolloff, when a voter fails to vote for all races on the ballot, is a contributing factor to why Democratic candidates for Public Service Commission did not win when other Democratic candidates on the same ballot did win statewide.

3 African American Voters Have Historically Supported the Democratic Party in High Numbers

To assess the degree of racially polarized voting, Dr. Popick uses ecological inference methods to determine the degree to which Black and White voters supported candidates who ran for seats on the Georgia Public Service Commission between 2012 and 2021. There were eleven such races to consider, including two runoff elections due to Georgia's rule that candidates must receive a majority of ballots cast or go on to face a runoff election between the two candidates with the most votes. In all cases, Dr. Popick finds that White voters' candidate of choice is the Republican candidate. In all cases but one he finds that Black voters candidate of choice is the Democratic candidate.

These results illustrate that the Georgia Public Service Commission elections are better described as polarized by partisanship rather than by race. Two results from Dr. Popick's report support this conclusion. The first is that while both Black and White candidates ran for Public Service Commission over this time period, there is no correlation between the race of the candidate and support for the candidate among White and Black voters. In the five races where the Democratic candidate was Black, Black voter support for the Democratic candidate averaged 89.72%. In the remaining five races where the Democratic candidate was White,² Black voter support for the Democratic candidate averaged 92.08%. Thus, Black voters were no more likely to support the Democratic candidate for Public Service Commission when the candidate was Black than when the candidate was White. The results are similar among White voters as well. White voter support for Black Democratic candidates was 16.74% on average, and 17.24% when the Democratic candidate was White. Again, the race of the candidate had no impact on support for the Democratic candidate in these races. There were no Black Republican candidates for the Public Service Commission over this time period, so we cannot perform a similar analysis among Republican candidates.

²I exclude the 2016 District 2 race because no Democratic candidate ran in that race. I will discuss this race specifically later in the report.

The one aberration in which Black voters' candidate of choice was not affiliated with the Democratic Party occurred in the 2016 race for Public Service Commission District 2 in which no Democratic candidate ran in that race. Instead, the race featured a Republican candidate (Tim Echols) who ran against a Libertarian Party candidate (Eric Hoskins). Without a Democratic candidate on the ballot, there was a marked decline in support among Black voters. While the Libertarian candidate was still the preferred candidate of a majority of Black voters, their support declined to 79.18%, the lowest support across the 11 races included in Dr. Popick's analysis. Similarly, Black voter support for the Republican candidate in that race rose to its highest level at 20.82%. This unusual situation in which there was not a candidate from both major parties on the ballot illustrates that partisanship has a substantial impact on the level of support from voters in these races.

The results from the Public Service Commission races in Georgia align with broader patterns of the partisan preferences of voters in Georgia. Figure 1 shows that for the last 12 years, Black voters in Georgia have overwhelmingly voted for Democratic candidates while White voters in Georgia have supported Republican candidates, but not to the same degree as Black voters have supported Democratic candidates. On average, Black voters have preferred Democratic candidates at or near 90% while White voters have supported Democratic candidates around 30% of the time. The data for Figure 1 come from the Cooperative Election Study (CES), a very large survey of Americans conducted every two years that measures public opinion, voting behavior, and other political preferences across the United States. The survey is a collaboration of hundreds of scholars of American politics and has been used in the publication of many academic articles and other peer-reviewed materials. The survey team, which includes over 50 universities across the country, is led by researchers at Harvard University.³ The immense size of the survey (around 50,000 responses every two years) allows for statistically powerful analysis of individual-level voter responses at the state and sub-state level across time. Because of the CES survey's national scope,

³See <https://cces.gov.harvard.edu/> for more details of the survey design, datasets, researchers involved, and publications resulting from the survey data.

there were no questions regarding vote choice for Public Service Commission in Georgia. Nevertheless, given the high correlation between the results in those races and other elections in Georgia (for example, see Figure 1 below), I present results that look at vote choice in congressional, gubernatorial, and presidential elections — all of which are closely related.

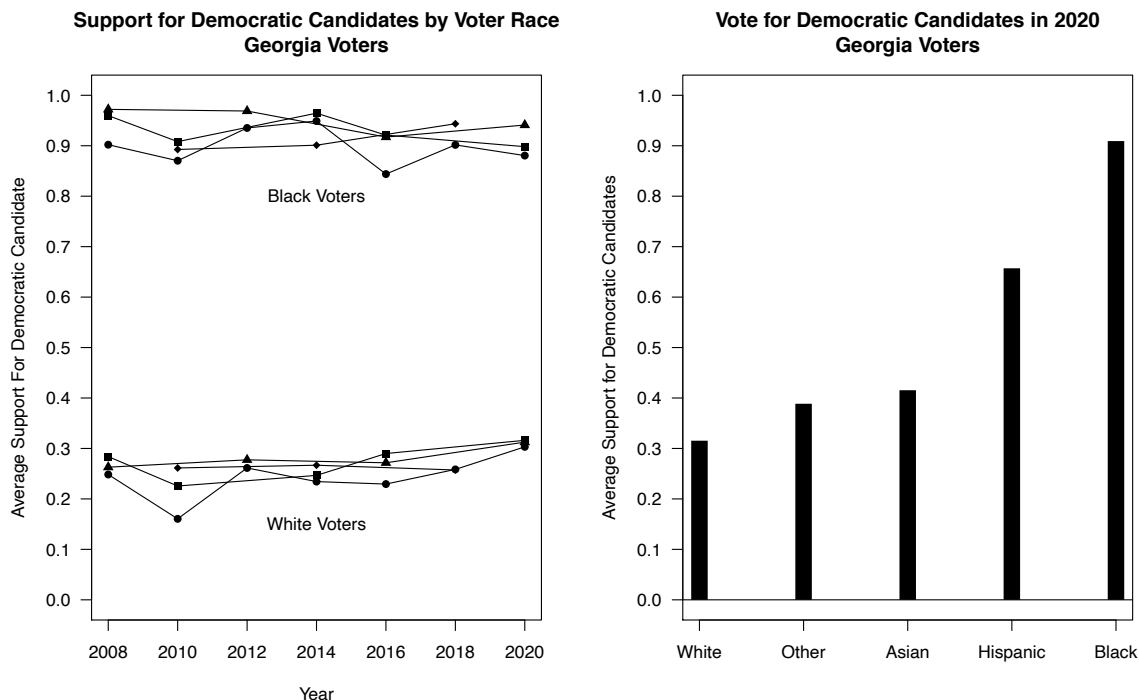


Figure 1: **Partisan Voting Patterns by Race** - The left panel shows historic voting patterns among White and Black voters in Georgia from 2008 to 2020 for multiple different races: US House (circles), US Senate (squares), President (triangles), and Governor (diamonds). The right panel shows the average support in 2020 for Democratic candidates in US House, US Senate, and President (averaged together) across multiple racial groups. Data Source: Cooperative Election Survey.

Figure 2 shows a similar result to Figure 1, but looks at party identification rather than vote choice. We see again that Black voters in Georgia, when asked which party, if any, they affiliate with are very likely to identify with the Democratic Party. Over the time considered in the figure (2008-2020), affiliation with the Democratic Party ranges between 78% and 92% (the left panel of Figure 2) while affiliation with the Republican Party among Black voters (the right panel of Figure 2) is consistently around 5%. White voters over this period affiliated with the Democratic Party at roughly 25% and were affiliated with the

Republican Party between 52% and 64%.⁴

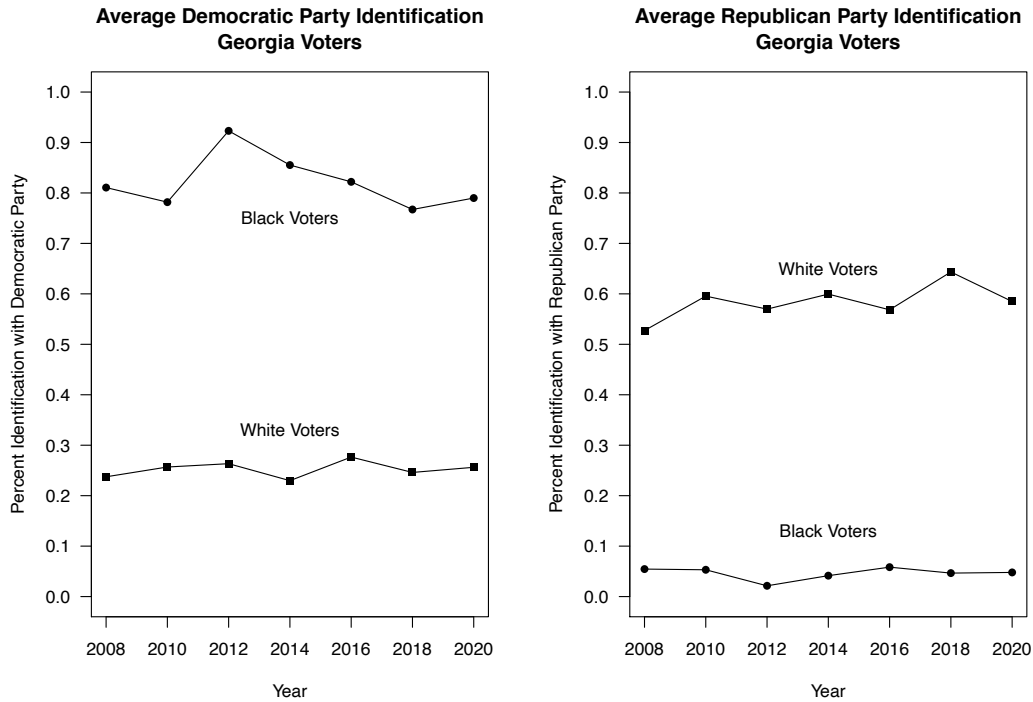


Figure 2: **Partisan Affiliation Patterns by Race** - The left panel shows historic affiliation with the Democratic Party among White and Black voters in Georgia from 2008 through 2020. The right panel shows the same information for affiliation with the Republican Party. Data Source: Cooperative Election Survey.

⁴Adding Democratic and Republican Party affiliation together will not sum to 100 since some voters choose not to identify with either party. The typical party affiliation question asks voters if they identify or “lean” towards one party or the other. I group “leaners” together with “affiliates” in these figures.

4 Partisanship Trumps Race in Voter Preferences

The results above show a strong and consistent preference for Democratic candidate among Black voters in Georgia and a more split preference among White voters, but with a majority supporting Republican candidates. Another way to consider this relationship is by using a multiple regression model. A multiple regression model allows us to disentangle the correlation between voters' race and vote choice versus their partisan affiliation and vote choice by showing the impact of each factor while holding constant the other. The outcome variable in each model is whether or not the voter indicated voting for the Democratic candidate in the race in question. This variable is regressed on a series of dichotomous variables measuring the voters stated race, partisan affiliation, gender, and age. I include four different regression models, one for voting for the Democratic candidate in each of the following races in Georgia in 2020: US House, Senate (the 2020 CES survey did not ask about the 2020 Senate Special election in Georgia), President, and Governor (I use the 2018 data for this question). The figure below shows the estimated coefficients (and associated 95% confidence intervals) for race and party and can be interpreted as the predicted change in the probability of voting for the Democratic candidate associated with that demographic feature. The left four points show the predicted change in Democratic vote propensity associated with race (holding partisanship constant) while the right four points show the predicted change in Democratic vote propensity associated with partisanship (holding race constant). The relatively smaller values of the points associated with race and the relatively larger values of the points associated with partisanship show that when considered separately, partisanship has a much larger impact than race in predicting the party of one's vote choice.

Figure 4 considers the race and partisanship of congressional candidates in Georgia and finds little variation in who Black and White voters support in Georgia regardless of the race of the candidates. I use Congressional races here so as to have more observations in which Black and White candidates from both parties ran for election (there were no Black Republican candidates for Public Service Commission in the time period considered

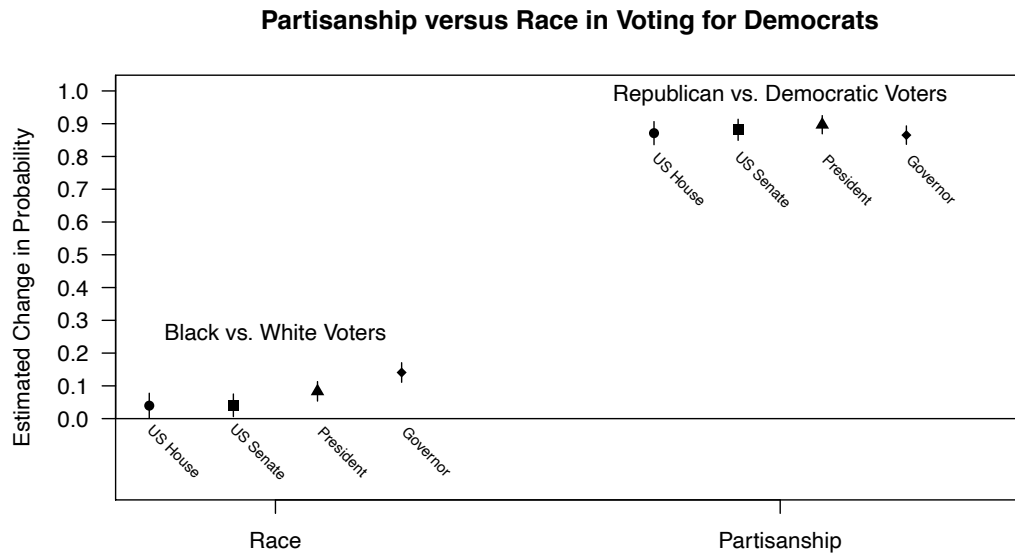


Figure 3: **Predictors of Vote Choice from a Multiple Regression Model in Georgia 2020** - Voting for the Democratic candidate in 2020 in US House, Senate, President and Governor (2018) elections is regressed on the voter's race, partisanship, gender, and age. The figure shows the change in the probability of voting for the Democratic candidate holding constant the other factors included in the model. The left four points show that when holding partisanship constant, race has a small impact on vote choice. On the other hand, the four points on the right show that when holding race constant, partisanship has a very large impact on the probability of voting for the Democratic candidate. The result is consistent across House, Senate, President, and Gubernatorial races.

in Plaintiff's report). However, the results are similar to those discussed earlier in the Public Service Commission races in that there is little variation in the preferences of Black and White voters based on the race of the candidates. The results here are consistent with those results discussed above. Regardless of the race of the candidate from either party, Black voters supported the Democratic candidate nearly 90% of the time in all cases (values range between 86% and 93%). White voters show slightly more variation, but support for Democratic candidates remains below 40% in all but one case.⁵

⁵The one outlier is support among White voters for Democratic candidates when a Black Republican is on the ballot (51.57%). However, this number is unusually high because of a particularly unpopular Black Republican candidate who ran in Georgia's 5th District in 2020 (Angela Stanton King). This race had another unusual component in that while the regular congressional election campaign was occurring there was a simultaneous runoff election campaign for a special election to fill the seat for the month prior to the sitting of the 117th Congress after the death of the incumbent legislator, John Lewis. The candidates

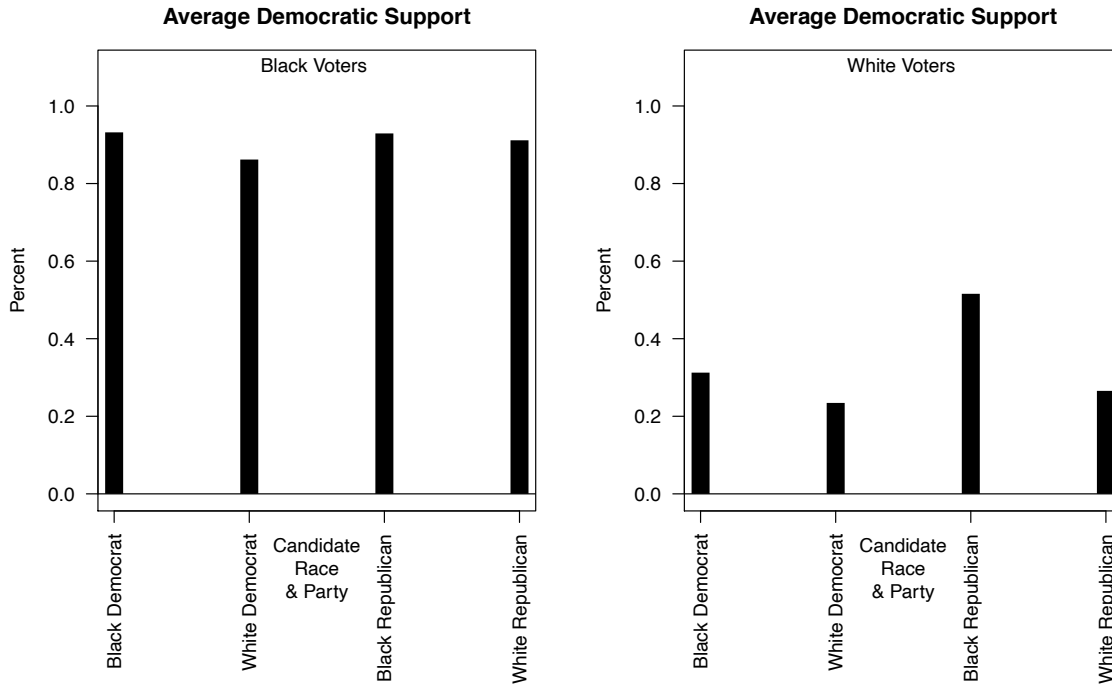


Figure 4: **Influence of Candidate Partisanship Versus Race**

The results presented in this section and in the previous sections show that there is strong evidence of cohesive Black voter support for Democratic candidates, regardless of the race of the candidates in either party. Similarly, there is slightly less cohesive, but still majority White voter support for Republican candidates, regardless of the race of the candidates in either party. Thus, the election analysis provided here and in Dr. Popick's report demonstrate that partisan polarization, rather than racial polarization, is the best explanation for the voting patterns in Georgia.

for the special election were separate from the candidates who appeared in the regularly occurring election. Removing this very unique election brings the support among White voters for Democratic candidates when there is a Black Republican on the ballot to 37.63%.

5 Recent Elections in Georgia Have Been Competitive

Figure 5 shows the two-party election results of statewide races in Georgia since 2018. Points inside the dotted horizontal lines were decided by less than 1 percentage point. Half of statewide elections in Georgia since 2018 have been decided by 1 percentage point or less, with Democratic candidates winning three of the five statewide races in 2020 (president and both Senate seats). The 2020-2021 results show that it is clearly the case that Democrats can win statewide elections in Georgia, and furthermore have come very close to winning statewide races in a number of other recent cases.

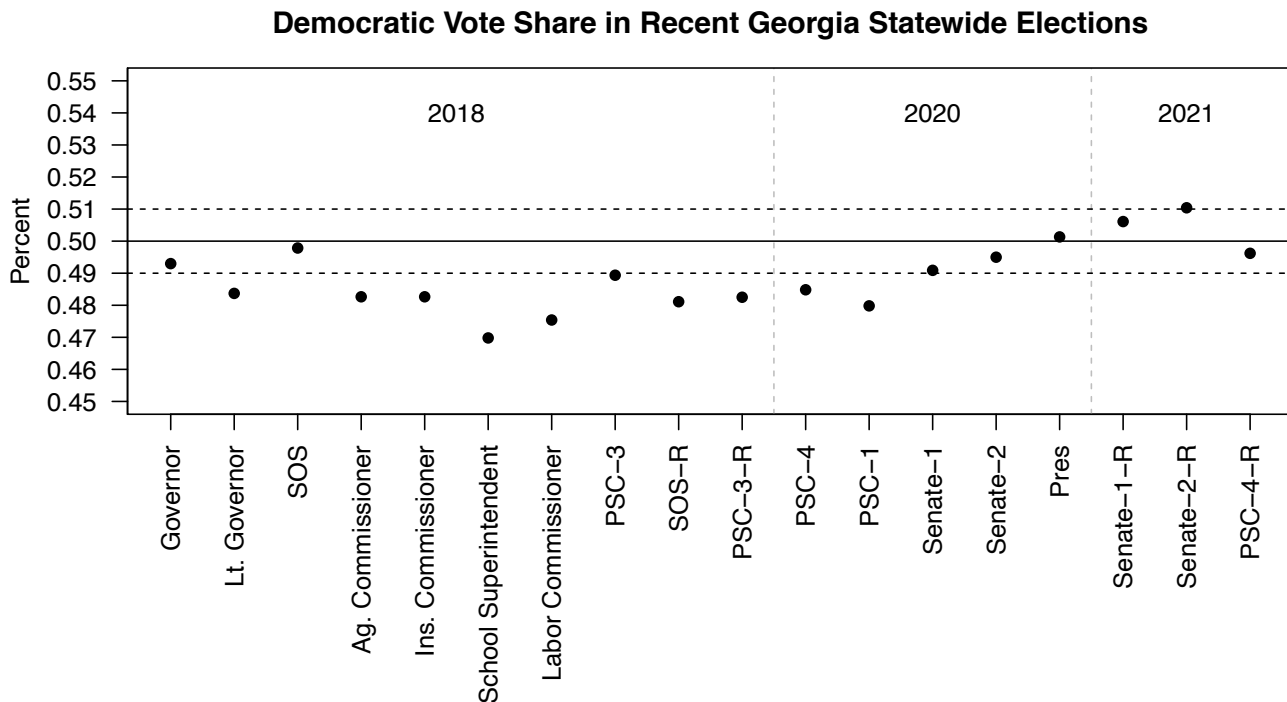


Figure 5: **Statewide Election Results in Georgia Since 2018**

6 Competition is Good for Democracy

One factor to be aware of when considering the proposed change from statewide elections to single-member districts is the likely change in the competitiveness of future Public Service Commission elections. Figure 6 below shows that the competitiveness of these races will likely decrease — in many cases substantially — if changed from a statewide election to the single-member geographic districts proposed by the plaintiffs.⁶ To calculate the expected change in competitiveness I collected from the Georgia Secretary of State’s website the share of the two-party vote earned by Democratic candidates who ran in statewide elections in Georgia in 2020 (the specific races are: president, Senate, Senate special, Public Service Commission 1 and 4). I then calculated the average Democratic vote in each of the five proposed districts put forward by the plaintiffs. This average Democratic vote share provides an aggregate measure of the partisan lean, or expected Democratic vote one might expect if the Public Service Commission races were to take place in these single-member districts rather than statewide. Of course, differences in candidate appeal, party support, and other factors will cause individual races to differ somewhat from these averages, but nevertheless, by averaging multiple races together, we obtain a general sense of how competitive future Public Service Commission races will be. Furthermore, the results of the most recent past Public Service Commission races have been highly correlated with the results of other statewide races held at the same time (see Figure 7 below).

The left panel of Figure 6 shows the results of this analysis. The circles show the most recent election results for each Public Service Commission race in which the election was held statewide. The squares show the average Democratic vote share in each of the proposed single-member districts. The vertical line is placed at .50, showing the point at which both candidates receive 50% of the vote and the race would be most competitive. There are two main points to take from these results. First, the most recent election for each Public Service Commission district has been quite competitive, with all but the most recent

⁶I refer here to the proposed maps labeled Exhibit 3 in the initial complaint.

District 2 race being decided by fewer than 3 percentage points.⁷ The second main takeaway is that in all cases but one, the proposed plan of having 5 single-member districts would make future elections less competitive. This is seen in the figure by noting that the squares are all (with the exception of District 3) further away from .50 than the circles. Instead of five highly competitive seats, as has been the case in recent PSC elections, the proposed plan would create two safe Republican seats (Districts 5 and 2), an extremely safe Democratic seat (District 1), one slightly Republican, but still possibly competitive seat (District 4), and one highly competitive seat (District 3).

The middle and right panels of Figure 6 show the same results but use a different election to calculate the expected Democratic vote in the proposed single-member districts. Rather than using the average of multiple races in each district, the squares in the middle panel show the two-party Democratic vote share in the District 1 election held in 2020. In the right panel, the squares show the result from the District 4 election held in 2020. The overall pattern is the same across the three panels. However, the average of multiple races (the left panel) is a better measure of the expected competitiveness because averaging across races helps to reduce the influence of any idiosyncratic effects of any one particular race or candidate.

A substantial literature in political science argues that competition is an important component of a healthy democracy and that there are numerous benefits to voters when elections are competitive rather than being lopsided toward one party or the other. For example, in his influential study of the mid-twentieth century one-party south, V.O. Key noted two-party competition as an important indicator of a healthy political system.⁸ Similarly, early scholars of democratic theory note the importance of competitive elections as an indicator of the quality of a democracy,⁹ and more recent work has sought to quantify this

⁷The most recent election for District 2 took place in 2016, however, no Democratic candidate ran in that election. As a result, I use the 2010 election for District 2 when both a Democratic and Republican candidate ran.

⁸Key, Valdimer Orlando., Heard, Alexander. *Southern Politics in State and Nation*. United States: University of Tennessee Press, 1984.

⁹Dahl, Robert A.. *A preface to democratic theory*. Chicago: University of Chicago Press, 1956; *Polyarchy*:

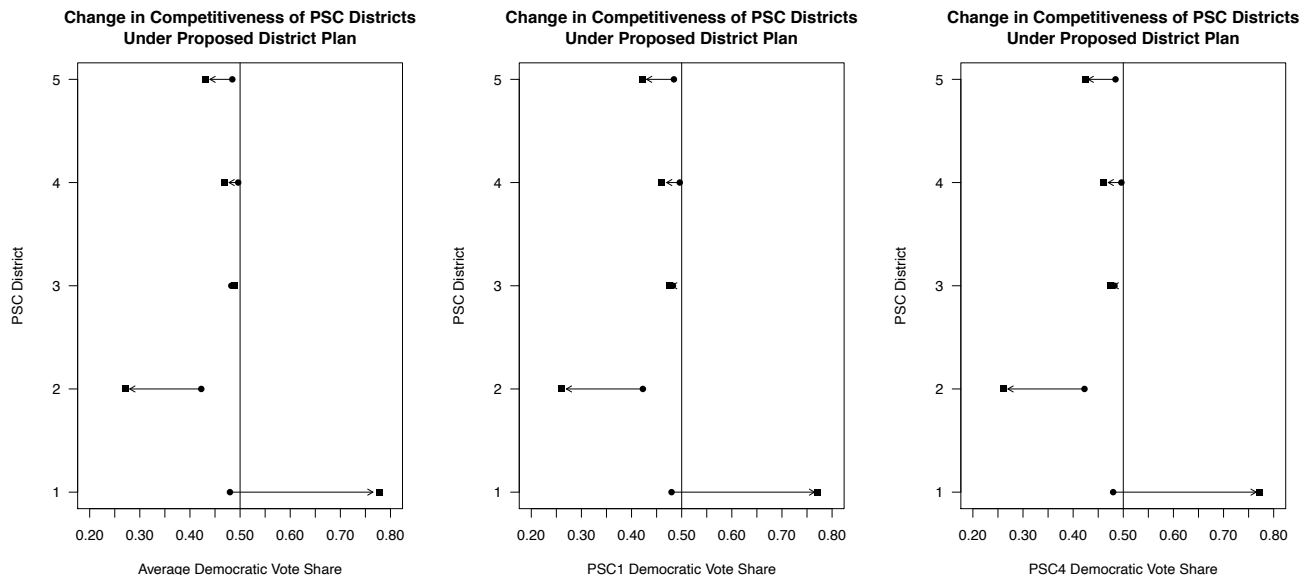


Figure 6: **Change in Competitiveness Under Proposed District Plan** - The circles show the two-party vote share for the Democratic candidate in the most recent election for each public service district. In the left panel the squares show the average Democratic vote share across a number of recent statewide elections (president, Senate, Senate special, PSC4, and PSC1) in each of the five proposed PSC districts. The middle and right panels show the same results, but use the PSC1 and PSC4 election results alone in each proposed district. All three figures show that the elections for PSC will likely become less competitive under the proposed single-member district plan with the exception of District 3.

by measuring competitiveness across a variety of electoral contexts and levels.¹⁰

Specifically, recent work has noted the abundant advantages that come with truly competitive elections. Increased competition has been associated with more informed and engaged citizens who consider their vote to be more consequential when elections are decided by narrower margins.¹¹ Competition has been associated with higher levels of political knowl-

Participation and Opposition. United States: Yale University Press, 2008; Downs, Anthony., *An Economic Theory of Democracy*. Germany: Harper, 1957; Schumpeter, J. 1947. *Capitalism, Socialism, and Democracy*. New York: Harper and Brothers

¹⁰Ranney, Austin. 1965. "Parties in State Politics." In *Politics in the American States: A Comparative Analysis*, eds. Herbert Jacobs and Kenneth N. Vines. Boston: Little, Brown; Hill, Kim Quaile. 1994. *Democracy in the Fifty States*. Omaha: University of Nebraska Press; Shufeldt, G. and P. Flavin. 2012. "Two Distinct Concepts: Party Competition in Government and Electoral Competition in the American States." *State Politics & Policy Quarterly*, 12(3): 330-342; Fraga, Bernard L. and Eitan D. Hersh. (2018) "Are Americans Stuck in Uncompetitive Enclaves? An Appraisal of U.S. Electoral Competition." *Quarterly Journal of Political Science* 13 (3): 291-311.

¹¹Kim, Jae-On, John R. Petrocik, and Stephen N. Enokson. "Voter turnout among the American states: systemic and individual components." *The American Political Science Review* 69, no. 1 (1975): 107-123; Cox, Gary W., and Michael C. Munger. "Closeness, expenditures, and turnout in the 1982 US House elections."

edge and greater interest in following politics and public affairs.¹² Moreover, voters living in competitive areas are more likely to participate in politics outside of voting in activities such as volunteering for political campaigns or participating in civic life more generally.¹³ There is also evidence that regularly competitive elections yield better accountability and responsiveness from elected officials. Research suggests legislators are more attentive to constituent communication, the issue preference of their voters, and do more to bring particularistic benefits (i.e. earmarked spending) back to their districts and constituents.¹⁴

7 Why Did Democrats Not Win PSC Races in 2020?

Figure 6 above indicated that recent elections for Public Service Commission have been competitive and decided by narrow margins. Nevertheless, Republican candidates have won all 5 of the most recent elections (and many more before that). What factors prevented, or at least contributed to Democrats not winning either (or both) of the District 1 and District 4 races? Figure 7 compares the results of the Public Service Commission elections in 2020 to the results of the presidential election held at the same time. Each point displays

The American Political Science Review (1989): 217-231; Rosenstone, Steven J., and John Mark Hansen. Mobilization, participation, and democracy in America. Longman Publishing Group, 1993; Campbell, D.E. 2006. Why We Vote: How Schools and Communities Shape Our Civic Life. Princeton: Princeton University Press; Pacheco, J.S. 2008. "Political Socialization in Context: The Effect of Political Competition on Youth Voter Turnout." Political Behavior, 30: 415-436

¹²Putnam, R.D. 2007. "E Pluribus Unum: Diversity and Community in the Twenty-First Century." Scandinavian Political Studies, 30(2): 137-174; Lyons, J., W.P. Jaeger, and J. Wolak. 2012. "The Roots of Citizens' Knowledge; Bowler, S. and T. Donovan. 2012. "Effects of Competitive US House Races on Voters." Paper prepared for the 2012 American Political Science Association Annual Meeting, New Orleans, LA.

¹³Kenny, C. B. 1992. "Political Participation and Effects from the Social Environment. American Journal of Political Science, 36(1): 59-267; Putnam, R.D. 2000. Bowling Alone: The Collapse and Revival of America Community. New York: Simon and Schuster; Lipsitz, K. 2011. Competitive Elections and the American Voter. Philadelphia: University of Pennsylvania Press.

¹⁴Ansolahehere, S., D. Brady, and M. Fiorina. 1992. "The Vanishing Marginals and Electoral Responsiveness". British Journal of Political Science 92(1): 21-38; Griffin, John D. "Electoral competition and democratic responsiveness: A defense of the marginality hypothesis." The Journal of Politics 68, no. 4 (2006): 911-921; Dropp, Kyle, and Zachary Peskowitz. "Electoral security and the provision of constituency service." The Journal of Politics 74, no. 1 (2012): 220-234; Abou-Chadi, Tarik. "Electoral competition, political risks, and parties' responsiveness to voters' issue priorities." Electoral Studies 55 (2018): 99-108; Ashworth, Scott, and Ethan Bueno de Mesquita. "Delivering the goods: Legislative particularism in different electoral and institutional settings." The Journal of Politics 68, no. 1 (2006): 168-179.

the results for a single county in Georgia (159 points total). The horizontal axis measures the presidential election results in that county while the vertical axis measures the Public Service Commission results in the same county. The left panel shows the results for District 1 and the right panel shows the results for District 4. Points below the diagonal line indicate counties where the Democratic vote share for president was larger than the Democratic vote share for Public Service Commission. Nearly all of the points fall below the diagonal line, indicating that in 2020, across nearly every county in Georgia the Democratic candidates for Public Service Commission underperformed the Democratic candidate for President held at the same time.

There are a variety of potential factors that could have contributed to the fact that Joe Biden won in Georgia while the Democratic candidates for Public Service Commission did not win while running at the same time, in the same electoral environment, on the same ballot. Of course, if every voter who cast a ballot for Joe Biden had also cast a ballot for the Democratic candidates for Public Service Commission, then each point in Figure 7 would fall exactly on the diagonal line and both Democratic candidates would have won alongside now-President Biden. One factor is the possibility that voters decided to split their tickets - voting for Joe Biden while voting for the Republican candidates for Public Service Commission. “Ticket splitting” is rare as voters have become increasingly loyal to one particular party;¹⁵ nevertheless, it still occurs in small numbers. We cannot, however, directly measure the degree to which ticket splitting occurred in these races since there are no data available that ask people their vote choice in both the presidential and Public Service Commission races in 2020.

A second contributing factor is what political science refers to as ballot “rolloff”, which occurs when a person votes in one race but does not complete their entire ballot, leaving some races blank. Using data reported by the Georgia Secretary of State, we know the number of ballots cast for president and the number of ballots cast in the same jurisdiction (county).

¹⁵Jacobson, Gary C. “Polarization, gridlock, and presidential campaign politics in 2016.” *The ANNALS of the American Academy of Political and Social Science* 667, no. 1 (2016): 226-246.

The difference between these two numbers measures the degree of ballot rolloff. Figure 8 measures the amount of ballot rolloff in each county in Georgia for both Senate races and both public service districts by comparing the number of ballots cast for these four races to the number of ballots cast for president in 2020. A value of “5” on the horizontal axis, for example, indicates that five percent fewer people voted in that particular race compared to the number of people who voted for president in that same county. The top row of Figure 8 shows the distribution of ballot rolloff for the two Senate races held in Georgia in 2020. The red vertical line shows the average rolloff across all 159 counties in each race. In the Senate elections the average ballot rolloff was between 1 and 2 percent. In the Public Service Commission races, rolloff is substantially larger. Not only is the average rolloff larger in both cases (3.2 and 4.3 percent), the distribution is also much more skewed toward larger numbers. In some counties nearly ten percent fewer ballots were cast for Public Service Commission than were cast for president in the same county.

These numbers, when added up across the various counties result in a substantially smaller electorate that voted in the Public Service Commission elections compared to those who voted for president. According to the official results from the Secretary of State, 118,965 fewer ballots were cast in the Public Service Commission District 1 race than were cast for president. An even larger 159,069 fewer ballots were cast for the District 4 race than were cast in the presidential race in Georgia. Note that this number of ballots is actually larger than the narrow margin of victory in this particular race.

We can further investigate if there is any correlation in where ballot rolloff is more or less likely to occur. Multiple regression results of ballot rolloff in the two Public Service Commission races show that there is a relationship between the proportion of a county’s African American population and the amount of ballot rolloff that occurred in that county in the 2020 election. Table 1 shows these results. In other words, counties with a higher proportion of African Americans were more likely to see higher ballot rolloff — i.e. fewer ballots cast for Public Service Commission races than for the presidential race. Given the

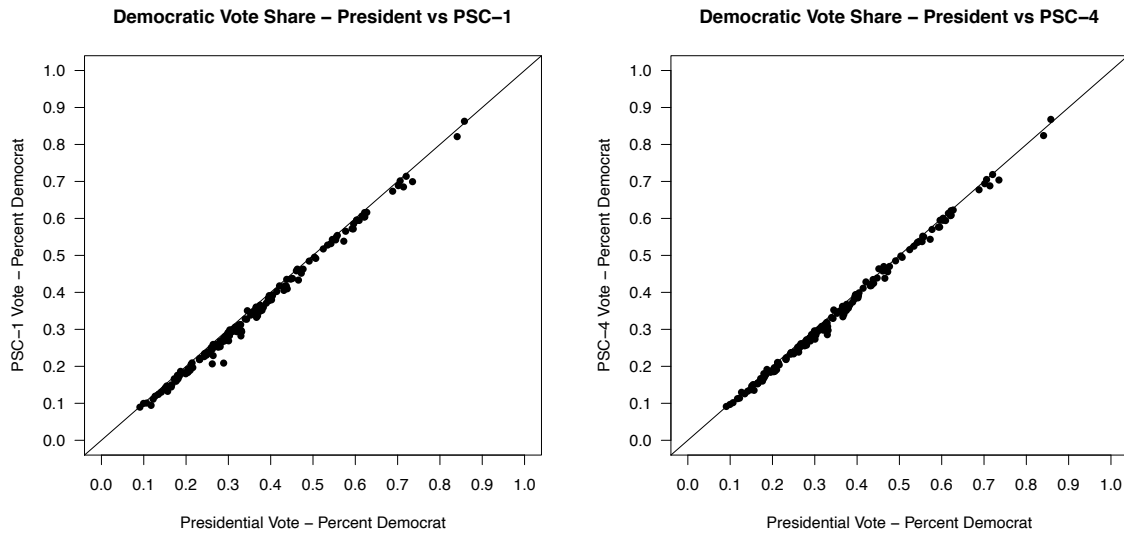


Figure 7: **2020 Public Service Commission Results vs Presidential Election Results** - Each point represents the Democratic vote share in a county in Georgia. The horizontal axis shows the Democratic vote share for the presidential race in that county and the vertical axis shows the Democratic vote share for the Public Service Commission race - District 1 on the left panel and District 4 in the right panel. The diagonal line shows the point of equality where the Democratic candidate for president and the Democratic candidate for Public Service Commission earned the same proportion of the vote. Points below the line indicate the Public Service Commission Democratic candidate under-performing Biden's performance in that county while points above the line indicate the Public Service Commission Democratic candidate out-performing Biden in that county.

propensity for African American candidates to vote for Democratic candidates, as noted in Figures 1-4 above, this relationship likely contributed to the underperformance of the Democratic candidates in these two races compared to the winning outcome for Joe Biden in Georgia. In the District 1 race, the coefficient of 4.06 in column 2 of Table 1 is statistically significant and indicates that for every additional percentage point increase in the African American population in the county, we would expect to see an additional .00406 ($.01 \times 4.06$) percent increase in ballot rolloff. Another way to consider this effect is by looking at the predicted change in rolloff between the least and most heavily African American counties in the state. Using citizen voting age population data provided by the US Census, the county with the smallest share of African Americans is Gilmer County (0.48% Black CVAP) while the county with the largest share of African American voters is Clayton County (74.7% Black CVAP). Between these two counties, the regression model would predict an increase in ballot

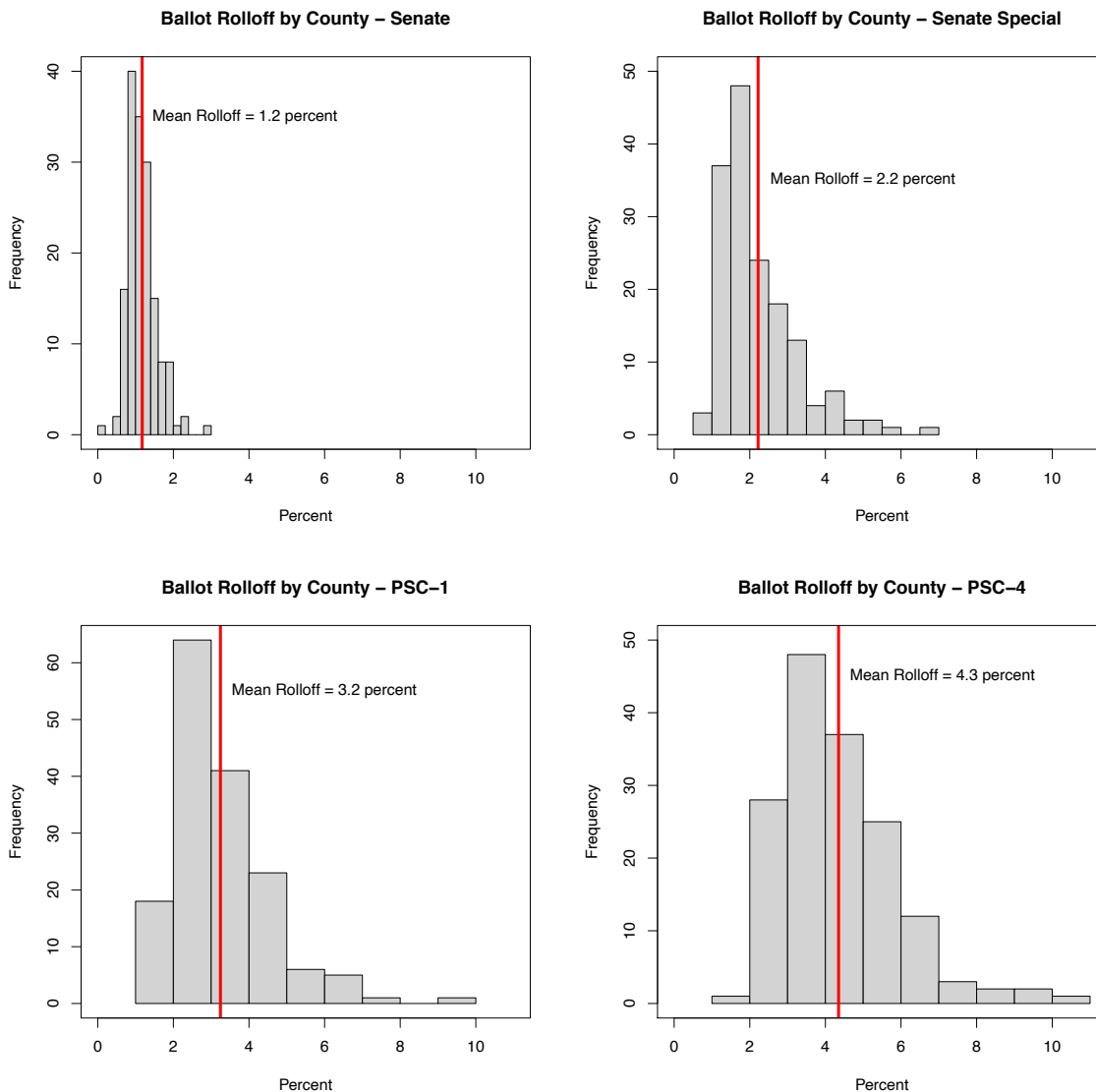


Figure 8: **Ballot Rolloff in Senate and Public Service Commission Races** - Each panel shows the distribution of ballot rolloff compared to the presidential race across the 159 counties in Georgia. The red line in each panel shows the average across all counties. Rolloff is substantially higher in the Public Service Commission races than in the Senate races held at the same time.

rolloff of between 3 and 4 percentage points.

These results are consistent with academic research on the differences in ballot roll-off between White and Black voters. In a variety of different locations and electoral contests, scholars have consistently found that Black voters (and non-White voters more generally) are more likely to “rolloff” than are White voters in the same election.¹⁶ Further research into

¹⁶Harris, Jamie M., and John F. Zipp. “Black candidates, roll-off, and the black vote.” Urban Affairs

Predictors of Ballot Rolloff

Variable	PSC-1	PSC-4
County Percent Black Population	4.06** (1.21)	5.56** (1.45)
County Population Density	-0.07* (0.03)	-0.08* (0.04)
County Percent Democratic Vote for President	-2.98 (1.53)	-5.08** (1.82)
Number of Observations:	159	159

Table 1: Regression of Predictors of Ballot Rolloff - Both models estimate the size of ballot rolloff, measured as the percentage difference between the number of ballots cast for US President in a county and the number of ballots cast for Public Service Commission in the same county (i.e. a value of 0 means the same number of ballots cast in both races, a value of 1 means one percent fewer ballots cast in the PSC race compared to the presidential race, etc.). The second column contains results for the District 1 race and the third column contains results for the District 4 race. Coefficients from an ordinary least squares regression are shown with standard errors in parentheses below. In both models, counties with a higher Black population are more likely to have higher ballot rolloff. Key: ** $p < .01$, * $p < .05$

the explanations for this difference has postulated a variety of contributing factors, including ballot formatting that could lead to voter confusion, a lack of salience or interest in particular down-ballot races, and voter fatigue when confronted with especially long ballots with many races to consider.¹⁷

8 Conclusions

Based on the evidence and analysis presented below, my opinions regarding recent Public Service Commission races, and voting patterns more generally in Georgia can be

Review 34, no. 3 (1999): 489-498; Darcy, Robert, Schneider, Anne. 1989. "Confusing Ballots, Roll-Off, and the Black Vote." Western Political Quarterly 42 (3): 347-64; McGregor, R. Michael. "Voters Who Abstain: Explaining Abstention and Ballot Roll-Off in the 2014 Toronto Municipal Election." Urban Affairs Review 54, no. 6 (2018): 1081-1106; Nichols, Stephen M., and Gregory A. Strizek. "Electronic voting machines and ballot roll-off." American Politics Quarterly 23, no. 3 (1995): 300-318.

¹⁷Bullock III, Charles S., and Richard E. Dunn. "Election roll-off: A test of three explanations." Urban Affairs Review 32, no. 1 (1996): 71-86; Vanderleeuw, James M., and Baodong Liu. "Political empowerment, mobilization, and black voter roll-off." Urban Affairs Review 37, no. 3 (2002): 380-396; Reilly, Shauna, and Sean Richey. "Ballot question readability and roll-off: The impact of language complexity." Political Research Quarterly 64, no. 1 (2011): 59-67.

summarized as follows:

- It is well established that across recent years and a variety of electoral contexts Black voters are strongly support Democratic candidates. This support is much more unified than among White voters who prefer the Republican party, but not to the same degree that Black voters are loyal to Democratic candidates.
- However, when considered independently, a voter's partisanship is a much stronger predictor of their vote choice than is a voter's race.
- Support by Black and White voters for the candidates of their preferred parties holds true regardless of the race of the candidate from either party. A candidate's race has had little to no measurable impact on the partisan preferences of Black and White voters in Georgia.
- Statewide elections in Georgia have been very competitive in the last 3 years, and Democratic candidates won recent statewide races in 2020 and 2021 when Public Service Commission candidates were also on the ballot.
- Ballot rolloff is a contributing factor to why Democratic candidates for Public Service Commission did not win when other Democratic candidates on the same ballot did win statewide.

Appendix A - Curriculum Vitae

Michael Jay Barber

CONTACT INFORMATION

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Department of Political Science
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Provo, UT 84602

barber@byu.edu
<http://michaeljaybarber.com>
Ph: (801) 422-7492

ACADEMIC APPOINTMENTS

Brigham Young University, Provo, UT

August 2020 - present Associate Professor, Department of Political Science
2014 - July 2020 Assistant Professor, Department of Political Science
2014 - present Faculty Scholar, Center for the Study of Elections and Democracy

EDUCATION

Princeton University Department of Politics, Princeton, NJ

Ph.D., Politics, July 2014

- Advisors: Brandice Canes-Wrone, Nolan McCarty, and Kosuke Imai
- Dissertation: "Buying Representation: the Incentives, Ideology, and Influence of Campaign Contributions on American Politics"
- 2015 Carl Albert Award for Best Dissertation, Legislative Studies Section, American Political Science Association (APSA)

M.A., Politics, December 2011

Brigham Young University, Provo, UT

B.A., International Relations - Political Economy Focus, April, 2008

- *Cum Laude*

RESEARCH INTERESTS

American politics, congressional polarization, political ideology, campaign finance, survey research

PUBLICATIONS

19. **"Ideological Disagreement and Pre-emption in Municipal Policymaking"**
with Adam Dynes
Forthcoming at *American Journal of Political Science*
18. **"Comparing Campaign Finance and Vote Based Measures of Ideology"**
Forthcoming at *Journal of Politics*
17. **"The Participatory and Partisan Impacts of Mandatory Vote-by-Mail"**, with John Holbein
Science Advances, 2020. Vol. 6, no. 35, DOI: 10.1126/sciadv.abc7685
16. **"Issue Politicization and Interest Group Campaign Contribution Strategies"**, with Mandi Eatough
Journal of Politics, 2020. Vol. 82: No. 3, pp. 1008-1025

15. **“Campaign Contributions and Donors’ Policy Agreement with Presidential Candidates”**, with Brandice Canes-Wrone and Sharece Thrower
Presidential Studies Quarterly, 2019, 49 (4) 770–797
14. **“Conservatism in the Era of Trump”**, with Jeremy Pope
Perspectives on Politics, 2019, 17 (3) 719–736
13. **“Legislative Constraints on Executive Unilateralism in Separation of Powers Systems”**, with Alex Bolton and Sharece Thrower
Legislative Studies Quarterly, 2019, 44 (3) 515–548
Awarded the Jewell-Loewenberg Award for best article in the area of subnational politics published in *Legislative Studies Quarterly* in 2019
12. **“Electoral Competitiveness and Legislative Productivity”**, with Soren Schmidt
American Politics Research, 2019, 47 (4) 683–708
11. **“Does Party Trump Ideology? Disentangling Party and Ideology in America”**, with Jeremy Pope
American Political Science Review, 2019, 113 (1) 38–54
10. **“The Evolution of National Constitutions”**, with Scott Abramson
Quarterly Journal of Political Science, 2019, 14 (1) 89–114
9. **“Who is Ideological? Measuring Ideological Responses to Policy Questions in the American Public”**, with Jeremy Pope
The Forum: A Journal of Applied Research in Contemporary Politics, 2018, 16 (1) 97–122
8. **“Status Quo Bias in Ballot Wording”**, with David Gordon, Ryan Hill, and Joe Price
The Journal of Experimental Political Science, 2017, 4 (2) 151–160.
7. **“Ideologically Sophisticated Donors: Which Candidates Do Individual Contributors Finance?”**, with Brandice Canes-Wrone and Sharece Thrower
American Journal of Political Science, 2017, 61 (2) 271–288.
6. **“Gender Inequalities in Campaign Finance: A Regression Discontinuity Design”**, with Daniel Butler and Jessica Preece
Quarterly Journal of Political Science, 2016, Vol. 11, No. 2: 219–248.
5. **“Representing the Preferences of Donors, Partisans, and Voters in the U.S. Senate”**
Public Opinion Quarterly, 2016, 80: 225–249.
4. **“Donation Motivations: Testing Theories of Access and Ideology”**
Political Research Quarterly, 2016, 69 (1) 148–160.
3. **“Ideological Donors, Contribution Limits, and the Polarization of State Legislatures”**
Journal of Politics, 2016, 78 (1) 296–310.
2. **“Online Polls and Registration Based Sampling: A New Method for Pre-Election Polling”** with Quin Monson, Kelly Patterson and Chris Mann.
Political Analysis 2014, 22 (3) 321–335.
1. **“Causes and Consequences of Political Polarization”** In *Negotiating Agreement in Politics*. Jane Mansbridge and Cathie Jo Martin, eds., Washington, DC: American Political Science Association: 19–53. with Nolan McCarty. 2013.
 - Reprinted in *Solutions to Political Polarization in America*, Cambridge University Press. Nate Persily, eds. 2015
 - Reprinted in *Political Negotiation: A Handbook*, Brookings Institution Press. Jane Mansbridge and Cathie Jo Martin, eds. 2015

AVAILABLE
WORKING PAPERS

“Taking Cues When You Don’t Care: Issue Importance and Partisan Cue Taking”
with Jeremy Pope

“A Revolution of Rights in American Founding Documents”
with Scott Abramson and Jeremy Pope (Under Review)

“410 Million Voting Records Show the Distribution of Turnout in America Today”
with John Holbein (Under Review)

“Misclassification and Bias in Predictions of Individual Ethnicity from Administrative Records” (Under Review)

“Partisanship and Trolleyology”
with Ryan Davis (Under Review)

“Who’s the Partisan: Are Issues or Groups More Important to Partisanship?”
with Jeremy Pope (Under Review)

“The Policy Preferences of Donors and Voters”

“Estimating Neighborhood Effects on Turnout from Geocoded Voter Registration Records.”
with Kosuke Imai

“Super PAC Contributions in Congressional Elections”

WORKS IN
PROGRESS

“Collaborative Study of Democracy and Politics”
with Brandice Canes-Wrone, Gregory Huber, and Joshua Clinton

“Preferences for Representational Styles in the American Public”
with Ryan Davis and Adam Dynes

“Representation and Issue Congruence in Congress”
with Taylor Petersen

“Education, Income, and the Vote for Trump”
with Edie Ellison

INVITED
PRESENTATIONS

“Are Mormons Breaking Up with Republicanism? The Unique Political Behavior of Mormons in the 2016 Presidential Election”

- Ivy League LDS Student Association Conference - Princeton University, November 2018, Princeton, NJ

“Issue Politicization and Access-Oriented Giving: A Theory of PAC Contribution Behavior”

- Vanderbilt University, May 2017, Nashville, TN

“Lost in Issue Space? Measuring Levels of Ideology in the American Public”

- Yale University, April 2016, New Haven, CT

“The Incentives, Ideology, and Influence of Campaign Donors in American Politics”

- University of Oklahoma, April 2016, Norman, OK

“Lost in Issue Space? Measuring Levels of Ideology in the American Public”

- University of Wisconsin - Madison, February 2016, Madison, WI

“Polarization and Campaign Contributors: Motivations, Ideology, and Policy”

- Hewlett Foundation Conference on Lobbying and Campaign Finance, October 2014, Palo Alto, CA

“Ideological Donors, Contribution Limits, and the Polarization of State Legislatures”

- Bipartisan Policy Center Meeting on Party Polarization and Campaign Finance, September 2014, Washington, DC

“Representing the Preferences of Donors, Partisans, and Voters in the U.S. Senate”

- Yale Center for the Study of American Politics Conference, May 2014, New Haven, CT

CONFERENCE PRESENTATIONS

Washington D.C. Political Economy Conference (PECO):

- 2017 discussant

American Political Science Association (APSA) Annual Meeting:

- 2014 participant and discussant, 2015 participant, 2016 participant, 2017 participant, 2018 participant

Midwest Political Science Association (MPSA) Annual Meeting:

- 2015 participant and discussant, 2016 participant and discussant, 2018 participant

Southern Political Science Association (SPSA) Annual Meeting:

- 2015 participant and discussant, 2016 participant and discussant, 2017 participant

TEACHING EXPERIENCE

Poli 315: Congress and the Legislative Process

- Fall 2014, Winter 2015, Fall 2015, Winter 2016, Summer 2017

Poli 328: Quantitative Analysis

- Winter 2017, Fall 2017, Fall 2019, Winter 2020, Fall 2020, Winter 2021

Poli 410: Undergraduate Research Seminar in American Politics

- Fall 2014, Winter 2015, Fall 2015, Winter 2016, Summer 2017

AWARDS AND GRANTS

2019 BYU Mentored Environment Grant (MEG), American Ideology Project, \$30,000

2017 BYU Political Science Teacher of the Year Award

2017 BYU Mentored Environment Grant (MEG), Funding American Democracy Project, \$20,000

2016 BYU Political Science Department, Political Ideology and President Trump (with Jeremy Pope), \$7,500

2016 BYU Office of Research and Creative Activities (ORCA) Student Mentored Grant x 3

- Hayden Galloway, Jennica Peterson, Rebecca Shuel

2015 BYU Office of Research and Creative Activities (ORCA) Student Mentored Grant x 3

- Michael-Sean Covey, Hayden Galloway, Sean Stephenson

2015 BYU Student Experiential Learning Grant, American Founding Comparative Constitutions Project (with Jeremy Pope), \$9,000

2015 BYU Social Science College Research Grant, \$5,000

2014 BYU Political Science Department, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), \$3,000

2014 BYU Social Science College Award, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), \$3,000

2014 BYU Center for the Study of Elections and Democracy, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), \$2,000

2012 Princeton Center for the Study of Democratic Politics Dissertation Improvement Grant, \$5,000

2011 Princeton Mamdouha S. Bobst Center for Peace and Justice Dissertation Research Grant, \$5,000

2011 Princeton Political Economy Research Grant, \$1,500

OTHER SCHOLARLY ACTIVITIES Expert Witness in NANCY CAROLA JACOBSON, et al., Plaintiffs, vs. LAUREL M. LEE, et al., Defendants. Case No. 4:18-cv-00262 MW-CAS (U.S. District Court for the Northern District of Florida)

Expert Witness in COMMON CAUSE, et al., Plaintiffs, vs. LEWIS, et al., Defendants. Case No. 18-CVS-14001 (Wake County, North Carolina)

Expert Witness in Kelvin Jones, et al., Plaintiffs, v. Ron DeSantis, et al., Defendants, Consolidated Case No. 4:19-cv-300 (U.S. District Court for the Northern District of Florida)

Expert Witness in Community Success Initiative, et al., Timothy K. Moore, et al., Defendants, Case No. 19-cv-15941 (Wake County, North Carolina)

ADDITIONAL TRAINING EITM 2012 at Princeton University - Participant and Graduate Student Coordinator

COMPUTER SKILLS Statistical Programs: R, Stata, SPSS, parallel computing

Updated May 19, 2021

I, Michael Barber, am being compensated for my time in preparing this report at an hourly rate of \$400/hour. My compensation is in no way contingent on the conclusions reached as a result of my analysis.

A handwritten signature in black ink, appearing to read "Michael Barber". The signature is fluid and cursive, with the first name "Michael" written in a larger, more prominent script than the last name "Barber".

Michael Barber

May 20, 2021